

**REMARKS**

The present Amendment is being filed in response to the Office Action mailed on April 8, 2004, and in view of the office interview conducted on July 13, 2004. Applicant's attorneys greatly appreciate the courtesies extended by Examiner Ni during the office interview.

With the entry of the present amendment, Claims 1-38 remain in this application. In the Office Action, Claims 1-9 were rejected under 35 U.S.C. § 103, Claim 3 was rejected under 35 U.S.C. § 112, ¶ 2, and claims 10-37 were withdrawn as directed to a non-elected invention.

In this amendment, Claim 1 has been amended to specify that the second half shell is attached to the first half shell to form a housing that conforms to the shape of an ear canal. Support for this amendment can be found in the Specification at, for example, page 4, lines 17-25; page 10, lines 10-22; page 29, line 16 through page 31, line 6; and in Figs. 25-34.

Claim 3 has been amended to correct the Examiner's antecedent basis objection. It is believed that the § 112, ¶ 2 rejection is overcome.

New Claim 38, which depends from Claim 1, has been added to specify that the battery is substantially permanently affixed within the housing formed by the first half shell and the second half shell. Support for this amendment can be found in the Specification at, for example, page 3, lines 13-19; and page 30, line 29.

The Abstract of the Invention has been amended as suggested by the Examiner. No new matter has been added by way of these amendments.

As discussed in the Specification, most in-the-ear (ITE) hearing aids, such as in-the-canal (ITC) and completely-in-the-canal (CIC) hearing aids, are formed of a custom made shell conforming to the shape of the wearer's ear canal and a faceplate that is cemented to the shell. Components are attached to the faceplate using manual assembly techniques. At the final assembly, the populated faceplate is attached to the shell. Assemblers typically use a solvent to secure the faceplate to the shell. While the solvent joins and secures the two halves together, the assembler must hold the halves together to ensure a tight joint between the two portions which results in a strong seal. This process does not lend itself to high volume production. (See Specification a page 4, lines 17-25).

The present invention overcomes these difficulties by providing a hearing aid that comprises a first half shell and a second half shell that is attached to the first half shell to form a housing that conforms to the shape of an ear canal. Hearing aid components, such as a microphone, battery and electronics are mounted within the housing formed by the two half-shells. A mechanical securing mechanism located on the first half shell and the second half shell attaches the shells together. A flexible tip attached to the housing formed by the first half shell and the second half shell to provide deep a deep fit in the ear canal, and improved comfort for the user.

The present invention provides the benefits of conventional in-the-ear hearing aids, but is significantly easier and less-expensive to manufacture. See Specification at page 29, line 16 through page 31, line 6 (describing manufacturing process). Thus, the hearing aid can be made significantly less expensive for consumers, and in some embodiments, the hearing aid can be made disposable. See Specification at page 30, line 29.

In the Office Action, Claims 1-6 and 9 were rejected under § 103 as being obvious over U.S. 5,062,138 to Schmid ("Schmid"), and Claims 7-8 were rejected under § 103 as being obvious over Schmid in view of U.S. 5,606,621 to Reiter *et al.* ("Reiter"). It is believed that with the entry of the present amendment, these rejections are overcome, since neither of these references, either alone or in combination, teach or suggest the limitation that the housing formed by the two half shells conforms to the shape of an ear canal, as recited in independent Claim 1.

The primary Schmid reference relates to hearing aids that are worn behind the ear (*i.e.* "BTE" devices), and discusses a particular design for a BTE hearing-aid that includes two housing shells. (See, e.g., col. 1, lines 8-15). However, Schmid does not teach or suggest a hearing aid having two half shells that form a housing which conforms to the shape of an ear canal, as presently recited. This is understandable, since BTE hearing devices are generally larger than in-the-ear devices, and are intended to be worn behind the ear, not inside the ear canal. Schmid contains no teaching or suggestion to provide a hearing aid of Claim 1, and it is therefore submitted that Claim 1 should be allowed.

Furthermore, the deficiencies with respect to Schmid are not overcome by the secondary Reiter reference, since Reiter relates to a hybrid behind-the-ear and in-the-ear device, and fails to teach or suggest numerous limitations of Claim 1, including at least the limitations of a first half

shell and a second half shell; a housing formed by the two half shells that conforms to the shape of an ear canal; a microphone, battery and electronics being mounted within the housing formed by the half shells; and the mechanical securing mechanism for the half shells.

Accordingly, since the cited references fail to teach or suggest the invention of Claim 1, it is submitted that Claim 1 and its dependents, Claims 2-9 and 38 are all allowable.

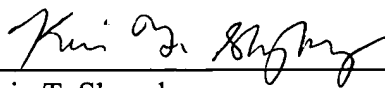
In addition, it is noted that the additional limitation of new Claim 38 that the hearing aid battery is substantially permanently affixed within the housing, is clearly novel and non-obvious over the cited references. Both Schmid and Reiter explicitly teach replaceable batteries that are easily removable from the hearing aid. (See Schmid at col. 3, lines 11-13; Reiter at col. 2, lines 59-60).

### CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

Kevin T. Shaughnessy

Registration No. 51,014

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 10/8/04